SOUTH FLORIDA WATER MANAGEMENT DISTRICT

AGENDA

WATER RESOURCES ADVISORY COMMISSION

Thursday, May 8, 2008, 9:00 AM
District Headquarters - B-1 Auditorium
3301 Gun Club Road
West Palm Beach, FL 33406

1.	**Welcome and Introductions** - Michael Collins, Chair	5m
2.	Member Issues	15m
3.	Legislative Update, 2008 Legislative Session - Mike Collins, Chair	10p 10d
4.	Comprehensive Everglades Restoration Plan (CERP) Programmatric Regulations: Discuss Draft WRAC Resolution - Mike Collins, Chair	30m
	See supporting document: Proregs Res WRAC 5 8 08 v2.pdf	
5.	Lake Okeechobee Committee Report - Malcolm "Bubba" Wade, WRAC Vice Chair	10p 10d
6.	Lake Okeechobee Service Area (LOSA) Water Availability Rule Development Update - Chip Merriam, Dep. Exec. Director, Water Resources, SFWMD	15p 15d
	See supporting document: LOSA WRAC 5 8 08 (2).pdf	
7.	Year Round Landscape Irrigation Rule Development Update - Chip Merriam, SFWMD	15p 15d
	See supporting document: Lndscp Irr Dft Rule v3.pdf	
	• Public Comment	10m
8.	Water Conservation Program Update and Comments on Draft - Deena Reppen, Dep. Exec. Director, Government and Public Affairs, SFWMD	15p 30d
	See supporting document: WCP Dft 4 5 08.pdf	
9.	Lunch - 12:30 - 1:15	45m
10.	Urban Fertilizer Rule Presentation - Paul Gray, Ph.D., Audubon of Florida	15p 15d
	See supporting document: UrbTurf WRAC 5 8 08.pdf	

- Public Comment 10m

11. Recreation Issues Workshop Report - Rick Smith, WRAC Facilitator, SFWMD; Steve Coughlin, Dir., Land Stewardship Div., SFWMD 10p 10d

See supporting document: WRAC Rec Iss Pres 5 8 08.pdf

See supporting document: WRAC Rec IWS 4 14 08 Mtg Sum.pdf

12. Water Flow South Issues - Cal Neidrauer, Chief Engineer, Operations Control Dept., SFWMD 15p 30d

13. L-31, North, Seepage Management Pilot Project Update - John Shaffer, Project Manager, Everglades Restoration, SFWMD 10p 10d

14. Adjourn: 3:20 p.m

1. **Welcome and Introductions** - Michael Collins, Chair 5m

1

2. Member Issues 15m

2

3. Legislative Update, 2008 Legislative Session - Mike Collins, Chair 10p 10d

3

4. Comprehensive Everglades Restoration Plan (CERP) Programmatric Regulations: Discuss Draft WRAC Resolution - Mike Collins, Chair 30m

See supporting document: Proregs Res WRAC 5 8 08 v2.pdf

4

RECOMMENDATION OF THE WATER RESOURCES ADVISORY COMMISSION TO THE GOVERNING BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT ASKING THE GOVERNING BOARD TO ADOPT A RESOLUTION URGING THE SECRETARY OF THE ARMY TO IMMEDIATELY BEGIN THE PROCESS OF REVISING THE PROGRAMMATIC REGULATIONS FOR THE IMPLEMENTATION OF THE COMPREHENSIVE EVERGLADES RESTORATION PLAN

WHEREAS, the Water Resources Advisory Commission (WRAC) is an advisory body to the South Florida Water Management District (SFWMD) Governing Board and the South Florida Ecosytem Restoration Task Force, and is a forum for improving public participation and decision-making on water resource issues in south and central Florida;

WHEREAS, one of WRACs responsibilities is to advise the Governing Board on issues that impact the implementation of the Comprehensive Everglades Restoration Plan (CERP), which was authorized in the Water Resources Development Act of 2000 (WRDA) ;

WHEREAS, Section 601 (h)(3) of WRDA required the development of programmatic regulations that establish a process for the implementation of CERP;

WHEREAS, the Programmatic Regulations for the Implementation of CERP (Programmatic Regulations) were promulgated by the Department of the Army in November 2003 (33 CFR Part 385);

WHEREAS, the Programmatic Regulations were intended to facilitate the consistent implementation of CERP projects by establishing project level criteria and programmatic guidance for the CERP as a whole;

WHEREAS, Section 385.6 of the Programmatic Regulations, “Review of Programmatic Regulations,” states; “The Secretary of the Army shall review, and if necessary revise, the regulations of this part at least every five years. In addition, the Secretary of the

Army may review and revise the regulations of this part whenever the Secretary believes that such review and revision is necessary to attain the goals and purposes of the Plan.";

WHEREAS, for the past 5 years, the requirements of the Programmatic Regulations have not had the effect of facilitating implementation but instead have created additional process that has impacted the U.S Army Corps of Engineers ability to complete Project Implementation Reports in an effective and timely manner, thereby making attainment of the goals and purposes of the Plan impracticable;

WHEREAS, meeting the requirements of the Programmatic Regulations have resulted in significant expenditure of funds and resources by the SFWMD, the State of Florida and the Federal Government beyond which were anticipated when CERP was authorized;

WHEREAS, the delays in the implementation of the plan have resulted in increased land acquisition and conservation costs far exceeding the original estimates of CERP; and

WHEREAS, the SFWMD's sources of revenue for CERP implementation are being constrained by current economic conditions;

BE IT RECOMMENDED BY WRAC THAT:

Section 1. the Water Resources Advisory Commission (WRAC) recommends that the Governing Board of the South Florida Water Management District adopt a resolution urging the Secretary of the Army to immediately revise and simplify the Programmatic Regulations for the implementation of the Comprehensive Everglades Restoration Plan with the goal of achieving a more streamlined and efficient process.

Section 2. This recommendation shall take effect immediately upon adoption.

RECOMMENDED this _____ day of _____, 2008.

WATER RESOURCES ADVISORY COMMISSION, BY ITS BOARD

By: _____
Chair Person

5. Lake Okeechobee Committee Report - Malcolm "Bubba" Wade, WRAC Vice Chair 10p 10d

5

6. Lake Okeechobee Service Area (LOSA) Water Availability Rule Development Update - Chip Merriam, Dep. Exec. Director, Water Resources, SFWMD 15p 15d

See supporting document: LOSA WRAC 5 8 08 (2).pdf

6

Lake Okeechobee Service Area Water Availability Rule Development Update

Water Resources Advisory Commission
May 8, 2008
Chip Merriam, Deputy Executive Director
Water Resources

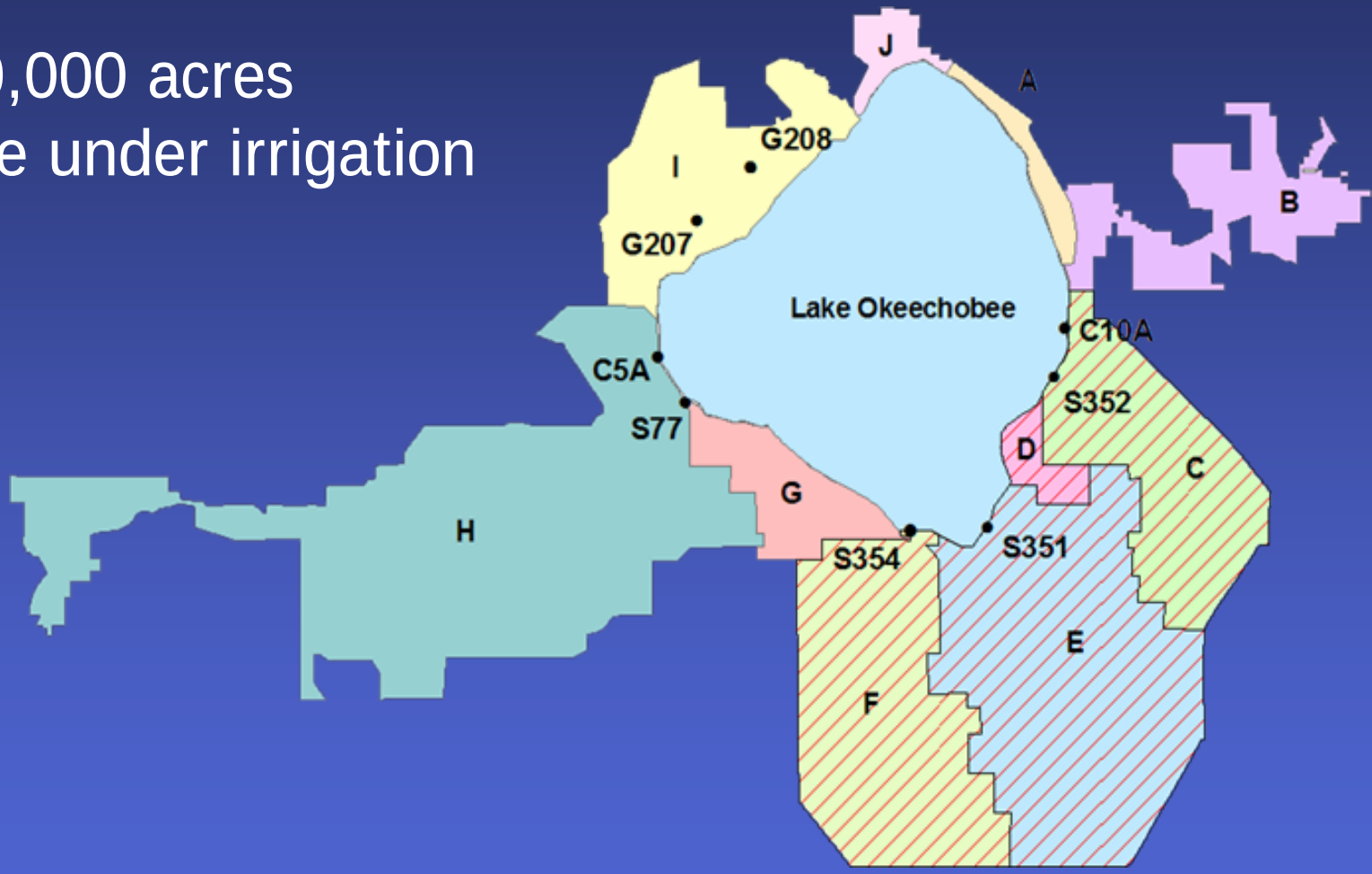
sfwmd.gov

Overview of Lake O. Water Availability Issue

- Revised Lake regulation schedule increases potential for water shortage & Lake MFL violations
- Lake O Service Area irrigation permits up for renewal beginning in October
- Existing permit rules not compatible with new Lake regulation schedule & would cause competition for water among existing users
- Existing Lake MFL rules also incompatible with new Lake regulation schedule
- Permit & MFL rules need to be revised until the Lake water supply capacity is returned

Lake Okeechobee Service Area Boundaries

- Approx. 700,000 acres of agriculture under irrigation



Goals of the Rule Development

Develop consumptive use regulatory criteria for Lake Okeechobee surface waters:

- Consistent with revised Lake regulation schedule
- Consistent with agency objectives for protection & enhancement of natural systems
- Provides criteria for renewal of existing agricultural projects for 20 years
- Limit the expansion of water uses that are inconsistent with the variations of Lake quantity and quality (such as drinking water supply)

Products

Draft rule language for Governing Board consideration addressing:

- Water use permit criteria for allocation of Lake water within the Lake Okeechobee basin
- Revise the Lake MFL rule to replace the existing prevention strategy with a recovery strategy
- Revise the LEC Regional Water Supply Plan Appendix H (MFL recovery/prevention plans) to include the new Lake MFL recovery strategy

Process/Schedule

- Rule language and MFL recovery plan drafted
  - Section 3.2.1. of the Basis of Review
  - 40E-8 (F.A.C.) Minimum Flows and Levels
  - Appendix H LECRWSP 2005 (revised)
- Four public rule development workshops conducted
- Status report to March WRAC and Governing Board
- Outreach to user community/finalize rule draft
- Seek Governing Board authorization to publish rule by May / June 2008
- Rule becomes effective in September 2008, begin LOSA water use permit renewals in October 2008

Issued Raised During Rule Development

- **Base Condition Water Use**
  - **Issue: how is it defined? Permitted or actual use? What about uses without a permit?**
  - **Response: existing permits issued before B-List rules, not representative of actual use**
  - **Rule Proposal: Apply B-List rule criteria to historic crop plantings to calculate base condition use per farm. Unpermitted uses within a Diversion Impoundment included in base; unpermitted projects not included in base calculation**

Issued Raised During Rule Development

- **Retired permits for reallocation to new uses**
  - **Issue: How far back should retired permits be considered for reallocation (e.g. Tallisman/STAs)?**
  - **Response: consideration of permits already retired would allow increase over current use, further impacting existing legal uses and Lake ecology**
  - **Rule Proposal: Only those legal uses in place on 1/1/08 and retired after 1/1/08 will be eligible for reallocation**

Issued Raised During Rule Development

- MFL recovery plan
  - Issue: should some of the base condition water use be dedicated to improve the Lake's hydrology during dry times?
  - Response:
    - LORSS analysis - Large reductions in water use needed for minor improvements in Lake stage during dry times
    - Water use plays role in lowering Lake during wet times
    - MFL violations caused by regulation schedule, not over use
  - Rule Proposal: existing base condition water use to be maintained, retired base uses may be reallocated to new uses

Questions

7. Year Round Landscape Irrigation Rule Development Update - Chip Merriam, SFWMD 15p 15d

See supporting document: Lndscp Irr Dft Rule v3.pdf

- Public Comment 10m

7

4-28-08 DRAFT
District-wide Year-Round Water Conservation
40E-24

40E-24.011 Policy and Purpose.

(1) This chapter comprises the ~~South Florida Water Management District's (District)~~ Mandatory Year-Round Landscape Irrigation Measures ~~for the area within Lee, Collier and that portion of Charlotte County~~ within the boundaries of the South Florida Water Management District (District). These mandatory measures are intended to provide a framework for consistent implementation to ensure the long-term sustainability of the water resources of the region, increase water use efficiency and prevent and curtail wasteful water use practices through regulatory means for landscape irrigation by all users. Local governments are encouraged to implement these measures through the adoption of ordinances that would include these measures, variance and enforcement provisions. These measures are in addition to Chapter 40E-2, F.A.C., provisions and non-regulatory measures, such as education and incentive programs, which are also utilized by the District to promote water conservation. These measures prohibit landscape irrigation during those periods of the day when irrigation efficiency significantly decreases, and limit landscape irrigation water use to a maximum number of ~~three~~ two days per week unless specified otherwise herein.

(2) through (3) No Change.

Specific Authority 373.016, 373.044, 373.0831, 373.113, 373.171, 373.227 FS. Law Implemented 373.042, 373.0421, 373.0831, 373.171, 373.223, 373.227 FS. History–New 6-12-03, Amended _____.

40E-24.101 Definitions.

When used in this chapter:

(1) "Address" means the "house number" (a numeric or alphanumeric designation) that, together with the street name, describes the physical location of a specific property. This includes "rural route" numbers but excludes post office box numbers. If a lot number in a mobile home park or similar community is used by the U.S. Postal Service to determine a delivery location, the lot number shall be the property's address. If a lot number in a mobile home park or similar residential community is not used by the U.S. Postal Service (e.g., the park manager sorts incoming mail delivered to the community's address), then the community's main address shall be the property's address. If a property has no address it shall be considered "even-numbered".

(2) "Athletic play area" means all golf course fairways, tees, and greens, and other athletic play surfaces; including, football, baseball, soccer, polo, tennis and lawn bowling fields, and rodeo, equestrian and livestock arenas.

(3) "Consumptive Use Permit (CUP)" means a permit issued pursuant to Chapter 40E-2 or 40E-20, F.A.C., authorizing the consumptive use of water.

(4) "Even Numbered Address" means an address, ending in the numbers 0, 2, 4, 6, 8, or rights-of-way or other locations with no address, or the letters A-M.

(5) "Existing landscaping" means any landscaping which has been which has been planted and established for more than sixty (60) days.

(6) "Landscaping" means shrubbery, trees, lawns, sod, grass, ground covers, plants, vines, ornamental gardens, and such other flora which are situated in such diverse

locations as residential landscapes, recreation areas, cemeteries, public, commercial, and industrial establishments, public medians, and rights-of-way except athletic play areas as defined in subsection 40E-24.101(2), F.A.C.

(7) "Low Volume Hand Watering" means the watering of landscape by one person, with one hose, fitted with a self-canceling or automatic shutoff nozzle.

(8) "Low Volume Irrigation" means the use of equipment and devices specifically designed to allow the volume of water delivered to be limited to a level consistent with the water requirement of the plant being irrigated and to allow that water to be placed with a high degree of efficiency in the root zone of the plant. The term also includes water used in mist houses and similar establishments for plant propagation. Overhead irrigation and flood irrigation are not included.

(9) "Landscape Irrigation" means the delivery of water to shrubbery, trees, lawns, sod, grass, ground covers, plants, vines, ornamental gardens, and such other flora which are planted and established for more than sixty (60) days and are situated in such diverse locations as residential landscapes, recreation areas, cemeteries, public, commercial, and industrial establishments, public medians, and rights-of-way except athletic play areas as defined in subsection 40E-24.101(2), F.A.C.

(10) "Micro-irrigation" means the application of small quantites of water on or below the soil surface as drops or tiny streams of spray through emitter or applicators placed along a water delivery line. Micro-irrigation includes a number of methods or concepts such aas bubbler, drip, trickle, mist or microspray, and subsurface irrigation.

(11) "New landscaping" means any landscaping which has been planted and established for sixty (60) days or less.

(12) "Odd Numbered Address" means an address ending in the numbers 1, 3, 5, 7, 9 or the letters N-Z.

(13) "Reclaimed Water" means wastewater that has received at least secondary treatment and basic disinfection and is reused after flowing out of a wastewater treatment facility.

(14) "Supplemented reclaimed water" and "blended reclaimed water" means reclaimed water which has been commingled with potable water, groundwater, surface water, or some other traditional source by a public or private utility for the purpose of increasing supply.

(15) "User" means any person, individual, firm, association, organization, partnership, business trust, corporation, company, agent, employee or other legal entity whether natural or artificial, the United States of America, and the State and all political subdivisions, regions, districts, municipalities, and public agencies thereof, which directly or indirectly takes water from the water resource, including uses from private or public utility systems, uses under water use permits issued pursuant to Chapter 40E-2 or 40E-20, F.A.C., or uses from individual wells or pumps.

(16) "Wasteful and unnecessary" means allowing water to be dispersed without any practical purpose to the water use; for example, excessive landscape irrigation, leaving an unattended hose on a driveway with water flowing, allowing water to be dispersed in a grossly inefficient manner, regardless of the type of water use; for example, allowing landscape irrigation water to unnecessarily fall onto pavement, sidewalks and other

impervious surfaces; allowing water flow through a broken or malfunctioning water delivery or landscape irrigation system.

Specific Authority 373.016, 373.044, 373.0831, 373.113, 373.171, 373.227 FS. Law Implemented 373.042, 373.0421, 373.0831, 373.171, 373.223, 373.250, 373.227 FS. History–New 6-12-03, Amended _____.

40E-24.201 Year-Round Landscape Irrigation Measures.

(1) The year-round landscape irrigation measures contained in this chapter are applicable to all users as defined in subsection 40E-24.101(9), F.A.C., including permitted and exempt users under Chapter 40E-2, F.A.C., unless indicated otherwise herein. These measures apply to all water sources~~, except that landscape irrigation accomplished using reclaimed water is subject to only paragraphs 5(a) of this section~~. In addition to the requirements of this section, all permitted users under Chapter 40E-2, F.A.C., are required to maintain compliance with all CUP conditions and terms, including those designed to require the implementation of water conservation practices.

(2) Any restrictions or other measures declared pursuant to Chapter 40E-21, F.A.C., or related Board or Executive Director orders which are more restrictive than a measure contained within this chapter, shall supersede this rule for the duration of the applicable water shortage declaration.

(3) It shall be the duty of each water user to keep informed as to the landscape irrigation measures presented within this chapter, which affect each particular water use.

(4) In addition to the specific measures enumerated below, all wasteful and unnecessary water use as defined in subsection 40E-24.101(10), F.A.C., is prohibited.

(5) The following requirements or exceptions shall apply to all users unless specified otherwise herein:

(a) ~~Landscape irrigation shall be prohibited daily between the hours of 10:00 a.m. and 4:00 p.m., except as otherwise provided herein.~~ Irrigation of existing landscaping shall comply with the following provisions:

1. Landscape irrigation shall be prohibited daily between the hours of 10:00 a.m. and 4:00 p.m., except as otherwise provided herein.

2. Even addresses, installations with irrigation systems that irrigate both even and odd addresses within the same zones, including multi-family units and homeowners' associations, and rights-of-way or other locations with no address as defined in subsection 40E-24.101(4), F.A.C., shall accomplish necessary landscape irrigation only on may accomplish necessary landscape irrigation only on ~~Tuesday, and/or~~ Thursday and/or Sunday.

3. Odd addresses as defined in subsection 40E-24.101(7), F.A.C., ~~and rights-of-way or other locations without an address~~ shall accomplish necessary landscape irrigation only on ~~Monday, and/or~~ Wednesday and/or Saturday.

(b) Landscape irrigation using 100% reclaimed water shall only be restricted as stated in paragraphs (5)(a)(1) and (5)(e)(1) and no irrigation shall occur on Fridays. Landscape irrigation using 100% reclaimed water may be restricted further by local governments or other reclaimed water providers, as necessary to promote conservation

of this alternative water source.

(c) Landscape irrigation using supplemented reclaimed water which meets one of the conditions listed in paragraphs 5(c)(1) through 5(c)(5), below, shall be subject to the restrictions set forth in paragraph 5(b). Landscape irrigation which utilizes supplemented reclaimed water that fails to meet the conditions specified below shall be subject to the restrictions set forth in paragraphs 5(d), and 5(e)..

1. The other source is incidental stormwater runoff that enters a reclaimed water storage pond;

2. The other source consists of withdrawals from an un-augmented stormwater system or water recovered from a permitted aquifer storage and recovery (ASR) well that stores seasonal diversions from a surface water body;

3. The other source is recovered from a reclaimed water ASR well permitted by the Florida Department of Environmental Protection, including reclaimed ASR well testing authorized in preparation for permit issuance;

4. The other traditional source does not exceed 10% of the total volume of water; or,

5. The reclaimed water provider has demonstrated to the District that the other traditional source is necessary to achieve full disposal of the reclaimed water.

(d) Irrigation of existing landscaping which utilizes supplemented reclaimed water and/or water derived from an alternative water source, but not including 100% reclaimed water, shall comply with the following provisions:

1. Landscape irrigation shall be prohibited daily between the hours of 10:00 a.m. and 4:00 p.m., except as otherwise provided herein.

2. Even addresses, installations with irrigation systems that irrigate both even and odd addresses within the same zones, including multi-family units and homeowners' associations, and rights-of-way or other locations with no address as defined in subsection 40E-24.101(4), F.A.C., may accomplish necessary landscape irrigation only on Tuesday, Thursday, and/or Sunday.

3. Odd addresses as defined in subsection 40E-24.101(7), F.A.C., may accomplish necessary landscape irrigation only on Monday, Wednesday, and/or Saturday.

(e) Irrigation of new landscaping shall comply with the following provisions:

1. Irrigation of new landscaping shall be prohibited daily between the hours of 10:00 a.m. and 4:00 p.m., except as otherwise provided herein.

2. On the day the new landscaping is installed, the new landscaping may be irrigated once without regard to the normally allowable watering times. Irrigation of the soil immediately prior to the installation of the new landscaping is also allowable without regard to the normal allowable watering days and times.

3. The sixty day period begins the day the new landscaping is installed. The new landscaping shall be installed within a reasonable time from the date of purchase, which may be demonstrated with a dated receipt or invoice.

4. Irrigation of new landscaping which has been in place for thirty (30) days or less shall be accomplished on Monday, Tuesday, Wednesday, Thursday, Saturday, and/or Sunday.

5. Irrigation of new landscaping which has been in place for thirty-one (31) to sixty (60) days shall be accomplished on Monday, Wednesday, Thursday, and/or Saturday.

6. Irrigation of the new landscaping is limited to areas containing the new landscaping only. An entire zone of an irrigation system shall only be utilized for landscape irrigation under this paragraph if the zone in question is for an area that contains at least 50% new landscaping. If a zone contains less than 50% new landscaping, or if the new landscaping is in an area that will not typically be irrigated by an irrigation system, only the individual new plantings are eligible for additional irrigation under this paragraph. Targeted watering may be accomplished by hand watering, or any appropriate method which isolates and waters only the new landscaping.

(f) ~~(d)~~ Landscape irrigation systems may be operated during restricted days and~~/or~~ times for cleaning and maintenance purposes with an attendant on site in the area being tested. Landscape irrigation systems may routinely be operated for such purposes no more than once per week, and the run time for any one test should not exceed 10 minutes per zone.

(g)~~(e)~~ Landscape irrigation for the purpose of watering-in fertilizers, insecticides, fungicides and herbicides, where such watering-in is required by the manufacturer, or by federal, state or local law, or best management practices, shall be allowed under the following conditions:

1. Such watering-in shall be limited to one application in the absence of specific alternative instructions from the manufacturer; and

2. Such watering-in shall be accomplished during normally allowable watering days and times unless a professional licensed applicator has posted a temporary ~~pesticide~~ sign containing the date of application and the date(s) of needed watering-in activity.

(h) Any plant material may be watered using low volume irrigation, micro-irrigation, and low-volume hand watering methods without regard to the watering days or times allowed pursuant to this section.

Specific Authority 373.016, 373.044, 373.0831, 373.113, 373.171, 373.227 FS. Law Implemented 373.042, 373.0421, 373.0831, 373.171, 373.223, 373.250, 373.227 FS. History–New 6-12-03, Amended _____.

40E-24.301 Local Government Option.

(1) Local governments that wish to enforce alternative landscape irrigation measures, shall be considered to be in substantial compliance with this rule upon the enactment of an ordinance establishing landscape irrigation measures which achieve water conservation and which allow no more cumulative days and time for landscape irrigation than subsection 40E-24.201(5), F.A.C. Such ordinance shall provide for variance and enforcement procedures that do not diminish the intent and effectiveness of the measures.

(2) Local governments with a jurisdiction divided between the South Florida Water Management District and another water management district may propose an alternative schedule of measures as necessary for the local government to achieve a

uniform schedule within its jurisdiction.

(3) At least thirty (30) days prior to the adoption of an ordinance for alternative landscape irrigation measures, the local government shall submit the proposed ordinance to the District.

(4) In order to evaluate the effectiveness of the approved alternative landscape irrigation measures, such local governments shall provide an annual report to the District which includes any variances granted or denied, enforcement actions taken and any measures proposed to be amended in the next reporting period. The first report shall be submitted no later than September 30, ~~2004~~ 2008. Each annual report thereafter shall be submitted no later than September 30th of the following year.

(5) Users within the jurisdiction or customers of such local governments shall comply with the alternative measures contained within the ordinance implementing that program and are not subject to the measures contained in subsection 40E-24.201(5), F.A.C.

Specific Authority 373.016, 373.044, 373.0831, 373.113, 373.171, 373.227 FS. Law Implemented 373.042, 373.0421, 373.0831, 373.171, 373.223, 373.227 FS. History–New 6-12-03, Amended _____.

40E-24.401 Enforcement.

(1) As required by Section 373.609, F.S., each county and city commission, state and county attorney, sheriff, police officer and other appropriate local government official in the region covered by this chapter which is not implementing alternative measures pursuant to a local government ordinance, shall respond to address-specific or location-specific violations of this chapter upon request from the District.

(2) A local government may enforce Rule 40E-24.201, F.A.C., within its jurisdiction by adopting an ordinance incorporating the provisions specified therein. At least thirty (30) days prior to the adoption of an ordinance to enforce Rule 40E-24.201, F.A.C., the local government shall submit the proposed ordinance to the District for review.

(3) Irrigation of landscapes, as defined above, may be further restricted by local governments only in response to concerns directly related to the local water supply system or as provided in Rule 40E-24.301, F.A.C., above.

(~~3~~4) In enforcing the provisions of this chapter the District will utilize any of the enforcement remedies available pursuant to Chapter 120 or 373, F.S., or applicable District rule. The Executive Director may take appropriate action pursuant to Sections 373.119, 373.175(4), 373.246(7) and 120.69, F.S., to enforce the provisions of this chapter.

Specific Authority 373.016, 373.044, 373.0831, 373.113, 373.171, 373.227 FS. Law Implemented 373.0831, 373.119, 373.171, 373.175, 373.246, 373.603, 373.609, 373.227 FS. History–New 6-12-03, Amended _____.

Section 40E-24.501 Variances and Waivers.

(1) Users may request relief from the provisions of this Chapter by filing a petition for variance or waiver pursuant to Section 120.542, Florida Statutes, and Rule 28-104, F.A.C. Examples of circumstances, which subject to the above-referenced

statute and rule and the provisions below, may be candidates for the issuance of a variance, include but are not limited to:

(a) Two or more properties which share a common source of water;

(b) A public or private water system experiencing, or anticipating, pressure problems associated with 40E-24.201(5), F.A.C.

(2) A variance or waiver is invalid if it has expired or if the user or its agent violates the terms of the variance or waiver.

(3) Users requiring relief from restrictions and/or measures set forth in a local government's year-round water conservation ordinance must petition that local government for relief.

Specific Authority 373.016, 373.044, 373.0831, 373.113, 373.171, 373.227 FS. Law Implemented 373.0831, 373.119, 373.171, 373.175, 373.246, 373.603, 373.609, 373.227 FS. History–New _____.

8. Water Conservation Program Update and Comments on Draft - Deena Reppen, Dep. Exec. Director, Government and Public Affairs, SFWMD 15p 30d

See supporting document: WCP Dft 4 5 08.pdf

8

South Florida Water Management District
Water Conservation Program Plan

Introduction

"*As this drought reminds us, the days of cheap and unlimited water are over. Residents and businesses must develop a culture of conservation to protect our limited water resources. Our goal is to create a long-term water conservation program that is active all year round – not just during droughts – and results in a measurable and lasting difference.*"

-- Eric Buermann, Governing Board Chairman
South Florida Water Management District
November 2007

Water is the essence that inextricably intertwines the environment, economy and quality of life in South Florida. Just as abundant water gives vitality to the region, a lack of water strains natural resources, stifles economic growth and periodically imposes upheavals to daily routines.

The comprehensive program embodied in this collaborative plan aims to break the current reactionary approach of focusing on the benefits of water conservation primarily in response to emergencies. The end-goal is to replace today's "as needed" thinking with a more beneficial, year-round water conservation ethic.

While the public typically responds to calls for mandatory cutbacks in water use, the assumption is that once the shortage is over, the commitment to practicing water conservation is over as well. Constantly modifying expectations during emergency situations created by rainfall deficits and low water levels does little to promote enduring changes to behavior that will better protect the resource for the long-term. Replacing short-term restrictions with a clear, consistent and broader strategy for increasing the overall efficient use of water will help bring stability and predictability to the region.

Water conservation, also known as demand management, promotes permanent water use efficiencies. Achieving long-term efficiencies will require a combination of new technology, best business and management practices and behavioral changes. Education, incentives and regulations are among the tools available to make the transition…and to continue reinforcing the importance of maintaining positive gains.

Successfully fostering a strong ethic of conservation will protect South Florida's sensitive water resources and help ensure a more sustainable supply of water for both natural systems and people. Year-round conservation is a prudent component of water resource management. Demand reduction increases the available supply of water from existing sources to support new economic growth. It is also more immediate, significantly less costly and more energy efficient than developing new sources of water.

An added benefit of water conservation is its supporting role in environmental conservation. Demand reduction decreases the competition for water between the needs of the urban and agricultural areas and the needs of the environment. By stretching the current supply through conservation, more water may be available to support South Florida's diverse ecosystem, from lakes and estuaries to wetlands and watery marshland.

A History of Water Management in South Florida

The management of South Florida's water resources is extremely complex due to Florida's sub-tropical climate of extreme wet and dry periods. Compounding the natural challenges to water management in South Florida is the region's history of urban and infrastructure development.

Just a century ago, water flowed – and sometimes overflowed – from the Chain of Lakes in the central part of the state, through the naturally-winding Kissimmee River into Lake Okeechobee, then spread south through the southern Everglades to the flats of Florida Bay.

While native habitats and inhabitants thrived on the sub-tropical weather extremes of flood and drought, it was not as hospitable to people.

In the mid-1800s, taming this wet wilderness was viewed as a linchpin to attracting more settlers to the state. Efforts to "dredge and drain the swamp" accelerated after the turn of the century. Drying out the wetlands created large tracts of productive farmland. Soon, cities and towns developed along the coast.

Plans to further control the flow of water intensified after deadly hurricanes in the 1920s caused floods that took the lives of nearly 2,000 people living around Lake Okeechobee. By 1937, an earthen dike *(later to be named the Herbert Hoover Dike)* encircled the huge water body, giving it more defined boundaries than nature had originally created. A succession of droughts and floods followed, culminating in catastrophic regional flooding in the late 1940s which prompted calls for more relief. In response, the U.S. Congress authorized construction of the Central and Southern Florida Project – a massive network of canals, levees and water control structures that drastically changed the watery landscape.

Completion of the water management system allowed for tremendous population and economic growth. Originally designed to meet the needs of a projected two million people, today, more than 7.5 million live and work in the 16-county region. In addition, the population annually swells with the seasonal influx of part-time residents and year-round tourists. The region also supports a major agricultural industry and other water-dependent businesses.

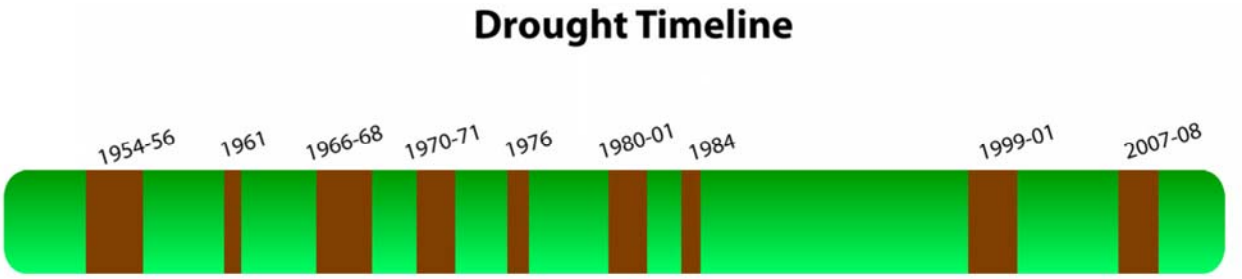
As an unintended consequence, the success of this engineering marvel came at the expense of the natural environment – impacting water quality, reducing natural water storage capacity and interrupting flow patterns. In the vast underground aquifers, heavier saltwater began to creep farther inland.

With limited surface water storage and a system designed for flood control, it is estimated that a staggering 1.7 billion gallons of water per day on average is "lost" due to diversion through the extensive canal system and discharge to the ocean – oftentimes disrupting the delicate salt and freshwater balance in coastal estuaries.

Today, the South Florida Water Management District and the State of Florida, along with the U.S. Army Corps of Engineers and other partner agencies are working to undo the damage caused by a century of drainage. Restoration of the historic Everglades "River of Grass" is the largest environmental restoration in the world. The overarching goal is to capture the fresh water that now flows unused to the ocean and the gulf and redirect it to natural areas that need it most for restoration purposes. Returning a more historic flow of water will not only revive the native habitat for 68 threatened and endangered species, it will also naturally replenish the underground aquifers that supply drinking water to the population.

Restoration progress is moving forward. More than 50,000 acres of constructed wetlands known as Stormwater Treatment Areas are successfully reducing the amount of excess nutrients flowing into the Everglades. Projects to reestablish more historic flow patterns and hydrologic characteristics are also under way. Giant above-ground reservoirs to capture and store water are being designed and built. The new water created by these and many other planned efforts will be reserved for the environment first. Any remaining available water will help enhance urban and agricultural water supplies.

In addition to the construction of new facilities, water conservation and the efficient use of water will continue to be a vital component in meeting the needs of both the environment and people.



A History of Drought and Drought Management

Major statewide or regional droughts have occurred in recent decades, including the early 1970s, the early 1980s, the 1989-90 period, the 1999-2001 period, and the most recent water shortage that first saw a dramatic downturn in rainfall beginning in 2006.

The 2006-2007 drought caused serious impacts, particularly in South Florida. The lack of rain produced dry conditions that led to 4,630 wildfires in 2007. According to the Department of Agriculture and Consumer Services, 582,486 acres of state and federal lands burned that year. In July of 2007, Lake Okeechobee fell to its lowest water level in recorded history.

In many cases, major periods of drought prompted significant state or regional actions – many with water conservation implications:

1970-1972: Statewide severe drought provides impetus for September 1971 Governor's Conference on Water Management. In response, Florida enacts Water Resources Act in 1972 creating the state's five regional water management districts. That landmark law also established a permit system regulating consumptive use of water based on 3-pronged reasonable-beneficial use criteria.

1980-81: Severe drought leads to development of South Florida Water Management District (SFWMD) Water Shortage Plan which provides specific guidelines for water restrictions based on type of use and severity of drought – ranging from 15% to 60% cutbacks. In response to extremely low levels, the Lake Okeechobee Supply-Side Management methodology for allocating releases to lake users was also developed and initially implemented during this same time.

1985: SFWMD launches the "Stretch It" water conservation campaign on the lower west coast. Due to differences in underground geologic make-up, this area is more vulnerable to rainfall deficits and was experiencing water shortages every two years *(in contrast, regional shortages were averaging every 10 years.)*

1988: SFWMD begins partnering with the U.S. Department of Agriculture–Natural Resources Conservation Service, the Florida Department of Agriculture and Consumer Services, and various soil and water conservation districts to share funding and technical expertise in support of Mobile Irrigation Labs (MILs). These specialized labs on wheels audit water use for agriculture and urban irrigation systems.

Since 2000, the eleven MILs currently in operation in South Florida have saved over 4.7 billion gallons per year. This is more than the average 4.5 billion gallons per year used by the average Florida city of 70,000 people.

1990-91: Drought conditions prompt activation of residential, business and agricultural water use restrictions based on Water Shortage Plan and Lake Okeechobee Supply-Side Management. SFWMD introduces the "Turn It Off" call-to-action public information campaign to help convey mandatory restrictions. That campaign morphs into "Plant it Smart" – a longer-term outreach effort focusing on Xeriscape landscaping practices.

1991: SFWMD formalizes rules for incorporating conservation into the Water Use Permit process.

- Local governments are required to adopt ordinances about hours for irrigation, Xeriscape landscaping, ultra-low volume fixtures and rain sensor devices.
- Utilities are required to create a water conservation-based rate structure, establish a leak detection and repair program, launch a public education program, and evaluate the feasibility of using reclaimed water.
- Commercial and industrial users are required to conduct water use audits, establish conservation awareness programs for employees, and implement cost-effective conservation measures.
- Golf courses are required to plant Xeriscape landscaping, use rain sensor devices, and limit irrigation to certain hours.
- Agricultural users are required to install micro irrigation systems for new citrus and container nursery projects.

1997: SFWMD establishes initial Alternative Water Supply grant program to assist local governments with construction of projects that create alternative supplies to help supplement limited "traditional" supplies.

1999-2001: Drought/water shortage, again prompts residential and agricultural water use restrictions per Water Shortage Plan. Based on "lessons learned" and resource needs, days and times for residential and business watering are modified based on water conditions. Methodology for Lake Okeechobee allocations also tweaked and modified.

2002: The Florida Department of Environmental Protection (FDEP) launches the Florida Water Conservation Initiative to identify ways to improve efficiency in all categories of water use. The initiative called for the inclusion of conservation into the water supply planning, regulatory and utility facilities planning processes.

2002: SFWMD creates the Water Savings Incentive Program (WaterSIP) cost-sharing program to assist in the funding of technology-based water conservation projects that help reduce water use. Examples include installation of rain shutoff devices for irrigation systems, plumbing retrofits and pressure stabilization valves.

2003: In response to on-again/off-again water use restrictions, SFWMD adopts year-round water use guidelines for outdoor irrigation specific to lower west coast counties *(Lee, Collier, and Charlotte counties).* To inform the public, SFWMD launches "Water Wisely: Water Conservation Starts in Your Own Backyard" campaign.

2004: FDEP, the five water management districts, the Florida Public Service Commission, the Utility Council of the American Water Works Association, the Florida Water Environment Association and the Florida Rural Water Association enter into an agreement to implement the recommendations of the Florida Water Conservation Initiative.

Florida enacts House Bill 293, creating Section 373.227 of the Florida Statutes (F.S.), to encourage efficient, effective and affordable water conservation measures, and identifies the goals to be addressed as part of the program. In addition, it encourages conservation by utilities, and gives the statewide program legislative backing.

The cooperative effort evolves into *Conserve Florida*, which develops a standardized method of assessing water conservation programs and practices, established an information clearinghouse and pilot applications for water conservation, and developed an interactive web-based tool to measure and model conservation programs to achieve goals.

2005: The Florida Legislature enacts the Water Protection and Sustainability Program which encourages cooperation between municipalities, counties and the water management districts in protecting and developing water supplies as well as promoting alternative water supply projects.

Over the last three years, the program has provided $212 million statewide to develop alternative water supplies, with close to $64 million going to communities in South Florida. The SFWMD has added another $50 million to this effort through its expanded Alternative Water Supply program.

2006 Statewide drought and water shortage. At the Governor's direction, FDEP pulls together interagency group to develop short-term "Drought Action Plan." As follow-up to one of the recommended action steps, FDEP also convenes several work groups to consider implementing earlier *Conserve Florida* conservation measures that could provide immediate benefits. The effort yields the "Being Drought Smart - Recommendations for a Drought Resistant Florida" report.

2007 South Florida is hardest hit by drought. Varying degrees of modified water use restrictions are imposed on Lake Okeechobee users and residents throughout all SFWMD 16 counties. For the first time, the agency declares Phase III (45%) cutbacks in multiple areas. New methodology for allocating lake water approved and put into place. Numerous other actions are undertaken to address the multi-year rainfall deficit and to assist communities in continuing to meet demands.

Lake Okeechobee, the back-up water supply for 5 million Floridians, reaches its all-time record low of 8.82 NGVD.

Calls for consistency and year-round measures prompt the SFWMD Governing Board to convene a Water Conservation Summit and a stakeholder process for exploring and developing a comprehensive water conservation program.

2008 In response to the continuing water shortage, one-day-a-week landscape irrigation restrictions go into effect across the SFWMD region.

Where does Florida's water come from?

Average annual rainfall in Florida is 54 inches, making it one of the wettest states in nation. However, most of the rain falls during just four summer months and much of it is "lost" to the natural hydrologic system through evaporation.

Nearly two-thirds of Florida's freshwater is pumped from vast underground reservoirs called aquifers. The deep Floridan Aquifer, which spans the majority of the state, supplies 62 percent; the Biscayne Aquifer, located completely within the jurisdiction of the SFWMD *(underlies most of Miami-Dade and Broward counties; portions of Palm Beach and Monroe)*, provides 17 percent; the remaining 21 percent is supplied by surficial and intermediate unnamed aquifers. The state's remaining one third of freshwater is supplied from surface waters, including lakes and rivers.

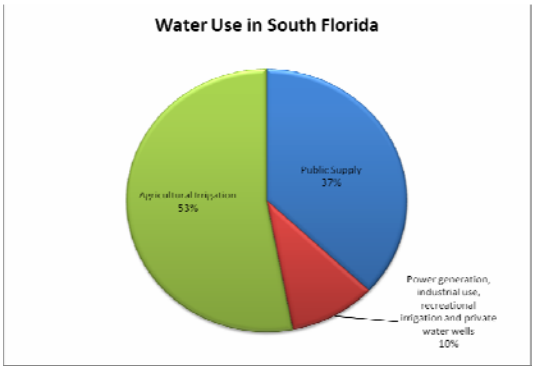
In South Florida:

- Most (*approximately 90%*) of the water used in homes and businesses comes from groundwater sources: wells drilled into the underground aquifers; the remainder comes from surface water sources.
- Both surface and groundwater supplies are replenished primarily by rainfall.
    - Surface water (*in rivers, canals, wetlands and lakes*) helps store rainfall in the short term, and thereby lessen the dangers of flooding, while also working to gradually replenish ground water and prevent saltwater intrusion.
- About 70% of yearly average rainfall comes during the rainy season (*June - Nov*)
- Local government water utilities (*counties and cities*) treat and provide water to most homes and businesses.
    - Water use for commercial purposes, such as public supply, industrial purposes and irrigation, is regulated by the SFWMD through Water Use Permits. Applicants must request the quantity, source and purpose of the water, as well as provide detailed technical information and plans for conservation and recycling. Under state law, water use permit requests must meet a three part "reasonable and beneficial" test – water use must not interfere with other water uses in the vicinity, will not harm the environment and is consistent with the public interest.
- Lake Okeechobee, the center of the system, serves a number of purposes:
    - Primary drinking water source for lakeside communities
    - Back-up irrigation water source for agriculture
    - Back-up groundwater replenishment source for lower east coast
    - Natural ecologic environment for fish, plants and wildlife
    - Recreational and commercial fishing and boating resource
- Heavy rainfall along the coast, where surface storage is very limited and flooding can threaten quickly, contributes very little to overall regional storage.
- Extended periods of low rainfall, combined with high evaporation, impacts both surface and groundwater levels; high threat of saltwater intrusion into underground freshwater supplies.

Water Use in South Florida

Floridians use approximately 6.5 billion gallons of freshwater every day. According to the latest U.S. Geological Survey report, South Florida residents average 179 gallons per person per day – the highest usage in the state. Half of that goes to outdoor irrigation…and more than 50% of water typically applied to lawns is lost to evaporation or run-off due to overwatering. With 40% of the state's population and a sizable agriculture industry, South Florida consumes more than half the state total – 3.4 billion gallons.

Within the South Florida Water Management District's 16-county region, agricultural irrigation accounts for 53% and public supply accounts for 37%. Power generation, industrial use, recreational irrigation and private water wells comprise the remaining 10%.



By 2025, demand for freshwater is projected to increase by 22 percent to 4.3 billion gallons per day. As agricultural land is replaced with urban development, public supply is expected to overtake farming as the number one use, consuming an anticipated 54% of the total. While agricultural is expected to be a smaller percentage of the overall demand – it still represents a huge slice of the water use pie and continues to be a major economic force within the state.

In total, the demand for urban and agricultural water uses is projected to increase significantly over the next 20 years. These water demands must to be met without causing harm to our environment and water resources. Regional water supply plans concluded current District water sources will not be sufficient to meet projected water demands over the next 20 years. However, these plans further concluded that with appropriate management and diversification of water supply sources -- including water conservation – there is sufficient water to meet the water needs during a 1-in-10 drought condition through 2020.

Beyond Drought - A Water Conservation Program for South Florida

In 2006 and 2007, drought conditions permeated the entire southeastern part of the country. Central and southern Florida was particularly hard hit. The South Florida Water Management District proactively established an emergency response Incident Command with more than 20 drought management teams. Actions were taken to conserve as much water as possible in the regional water management system, and progressively tighter agricultural and urban water use restrictions were imposed throughout the 16-county area. The agency worked closely with its utility, drainage district and local government partners to implement and enforce legal water shortage orders.

Based on records dating back to 1932, 2006 and 2007 were the driest back-to-back calendar years on record – creating a combined deficit of more than 20 inches. Dependent on rainfall to replenish supplies, Lake Okeechobee, the 730-square mile "liquid heart" of the system, plunged to its all-time record low of 8.82 feet NGVD on July 2, 2007. As groundwater levels dropped, saltwater threatened to move farther inland. District actions remained focused on efficiently and effectively managing the region's limited water supplies for the benefit of both people and the environment.

In October 2007, with no immediate end in sight for the multi-year severe regional water shortage, the South Florida Water Management District Governing Board unanimously adopted a resolution calling for a Water Conservation Summit. The purpose of the public forum was to draw insight from the experience of other organizations that had developed and implemented successful year-round water conservation programs in other regions of the country. The Summit would also serve as the kick-off for the development of a comprehensive water conservation program.

A Collaborative Approach

Continuing the agency policy of seeking stakeholder involvement in addressing key water resource issues and recognizing the importance of partnerships in effectively implementing plan components, the Governing Board directed that a participatory approach be utilized in developing the conservation program.

Hosted by the Governing Board's Water Resources Advisory Commission (WRAC), a public Water Conservation Summit was held on December 4, 2007, to gather information and input from local, state and national experts on the components of an achievable, meaningful and lasting water conservation program. Participants highlighted case studies on water conservation programs and identified practical components, successes and obstacles that the District may face in design and implementation.

The Summit also launched an intensive stakeholder-driven process to gather input and consensus from a wide variety of interests for development of a comprehensive plan. The District identified and assembled a diverse group of 21 members representing 13 water use groups and interests, including agriculture, business and industry, developers, the environment, local government and public utilities.

Led by a professional facilitator, the stakeholder group met monthly from December 2007 through March 2008 with the goal of assisting the District in the development of a proactive and achievable water conservation program. Input and suggestions from the stakeholder representatives were considered and incorporated into the recommended plan of action.

Stakeholder participants

Facilitator: Janice M. Fleischer, J.D., Principal, FLASH Resolutions

Agriculture:

- Tom MacVicar, P.E., President, MacVicar, Federico & Lamb, Inc.
- Charles M. Shinn III, Asst. Director, Government & Community Affairs - Florida Farm Bureau Federation

Developers:

- Susan Watts, Bonita Bay Group

Environmental Organizations:

- Jacquie Weisblum, Everglades Team Leader, Audubon of Florida
- Margaret McPherson, Vice President, The Everglades Foundation

Hospitality and Service Industries:

- Rick Hawkins, Director of Materials Management, The Breakers Hotel & Resort
- Armando Rodriguez, Director of the Environmental Affairs Division for Walt Disney World Co.

Industrial and Manufacturing:

- R. Bryan Fennell, General Manager II, Florida Power & Light, Co.

Local Government:

- Tammara "Tammy" Hall, County Commissioner, District 4 - North Fort Myers and North Cape Coral
- Mark Hull, Florida League of Cities; Village of Golf (Boynton) Manager; Hypoluxo City Councilman
- Commissioner Kristin Jacobs, Broward County Board of County Commissioners
- Anne Murray, Martin County, County Hydrogeologist

Nursery and Landscape Business:

- Dave Self, President, Board of Directors, Florida Nursery Growers & Landscape Association

Property Owners/Homeowners Associations:

- Andrew Lester, Regional President, The Continental Group

Parks and Recreation:

- Eric Call, Assistant Director, Palm Beach County Parks & Recreation Department; Member, Florida Recreation & Parks Association

Small Businesses:

- Kevin Cavaioli, American Society of Landscape Architects; Vice President, Florida Irrigation Society; Hoover Pumping Systems

Sports and Leisure (golf courses):

- Joel Jackson, CGCS, Executive Director, Florida Golf Course Superintendents Association

Utilities:

- Randolph Brown, City of Pompano Beach, Utilities Director
- Paul Mattausch, Director, Collier County Public Utilities Division
- John W. Renfrow, Director, Miami-Dade Water and Sewer Department

Wholesale Water Purchasers:

- John Stunson, City Manager, Oakland Park, Florida

State Agency Technical Resources:

- Camilo Gaitan, Senior Water Resources Engineer, Office of Agricultural Water Policy, Florida Department of Agriculture and Consumer Services
- Vicki Morrison, Principal Planner, Division of Community Planning, Florida Department of Community Affairs
- Tom Swihart, Environmental Administrator, Office of Water Policy, Florida Department of Environmental Protection

Governing Board Resolution

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

RESOLUTION NO. 2007- 1014

A RESOLUTION OF THE GOVERNING BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT AUTHORIZING A WATER CONSERVATION SUMMIT FOR THE PURPOSE OF EXPLORING AND CREATING A COMPREHENSIVE WATER CONSERVATION PROGRAM FOR SOUTH FLORIDA; PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Governing Board of the South Florida Water Management District recognizes the need for the development and implementation of a comprehensive water conservation program for South Florida; and

WHEREAS, the Governing Board of the South Florida Water Management District also recognizes that a comprehensive water conservation program would include regulatory, voluntary, incentive-based and education components; and

WHEREAS, the Governing Board of the South Florida Water Management District understands the importance of consensus, collaboration and public input into the development of an achievable, workable and enduring water conservation program for South Florida; and

WHEREAS, the Governing Board of the South Florida Water Management District recognizes extreme weather conditions have resulted in severe water supply shortage issues in South Florida; and

WHEREAS, the Governing Board of the South Florida Water Management District directs the Executive Director of the South Florida Water Management District to create a second water summit to be hosted by the Water Resources Advisory Commission and focused specifically on developing a comprehensive District-wide water conservation program; and

WHEREAS, the Summit will provide the foundation for a series of facilitated stakeholder meetings hosted by the Water Resources Advisory Commission to gain input toward a program that is built on collaboration and cooperation; and

WHEREAS, the stakeholder group should include representatives from a diverse array of regional water users and public interests, including, but not limited to: local governments, agriculture, nursery/landscape, utilities, developers, property owners and homeowner associations, environmental organizations, parks and recreation, sports and leisure, tourism, small business, manufacturing, hospitality and the service industry; **now therefore**

BE IT RESOLVED BY THE GOVERNING BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT:

Section 1. The Governing Board of the South Florida Water Management District hereby authorizes a water

493

conservation summit hosted by the Water Resources Advisory Commission for the purpose of exploring and creating a comprehensive water conservation program for South Florida.

Section 2. The Governing Board of the South Florida Water Management District hereby directs the Executive Director of the South Florida Water Management District to assemble a diverse array of regional stakeholders that will work together to provide input toward formulating and implementing a comprehensive District-wide water conservation program

Section 3. This resolution shall take effect immediately upon adoption.

PASSED and **ADOPTED** this 11th day of October, 2007.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT, BY ITS GOVERNING BOARD

By: _____ 10-17-07

Chair Person

(Corporate Seal) BOARD OF GOVERNING DISTRICT OF SOUTH FLORIDA WATER MANAGEMENT STATE OF FLORIDA SEAL Established 1949

ATTEST:

By: _____

District Clerk

APPROVED AS TO FORM:

By: _____

Office of Counsel

494
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496

A 2020 Water Conservation Program for South Florida

Vision

Create and implement a comprehensive and enduring water conservation program for South Florida. This successful program achieves a measurable reduction in water use, inspires governments, citizens and businesses to value and embrace a conservation ethic and serves as a national model for water conservation.

Core Values

- *Sustainable;*
- *Science-based;*
- *Measurable;*
- *Goal-based;*
- *Environmentally-protective;* and
- *Equitable.*

Program Initiatives and Strategies

To realize the vision of the South Florida Water Management District's water conservation program, the plan is organized into three program initiatives: **regulatory**, **voluntary and incentive-based**, and **education and marketing**. Each of these major initiatives has a corresponding goal, implementation strategies and a schedule of action steps.

Built on a set of core values, the plan's goals and implementation strategies are designed to establish a proactive water conservation program that ensures, in conjunction with other District initiatives, an adequate and reliable supply of water to both protect the health of the ecosystem and satisfy current and future water demands.

Implementation

Developing a reliable and sustainable funding strategy is essential for institutionalizing the components of the water conservation program. To this end and to ensure Floridians realize the most benefit from their investment in water conservation, implementation of strategies will take into account cost, ease of implementation, and potential water savings. Based on financial and stakeholder support, the program will be implemented over ten years through immediate, short-term, mid-term and long-term action steps. The program recognizes and bases decisions on the premise that water conservation is the least costly and most readily available source of water.

Regulatory Initiatives

From consumptive use permitting and local landscape ordinances to year-round irrigation conservation measures, rules and regulations have a role in advancing water use efficiency, promoting water conservation as the least-cost source of new water and protecting the natural environment. Reducing water use through a combination of regulations and voluntary initiatives will help to sustain our limited water supplies.

Regulatory tools can increase water use efficiency and reduce water use by permitted water users. Chapter 373, Florida Statutes, requires a water use permit for all ground or surface water use. Permit allocations are evaluated on what has come to be known as the "three-pronged test:" that any new use be reasonable and beneficial, in the public interest, and not interfere with an existing, legal user. The requirements for permit issuance are found in the **Water Use Basis of Review and Rules 40E-2 and 40E-20 of the Florida Administrative Code.** Associated with water use permits are standard and particular conditions for permit issuance. Incorporating additional conservation practices into water use permits could lead to significant water savings.

Together with State regulations, local government ordinances can also result in reductions of water use through landscape irrigation measures, assuring the planting of low-water-using vegetation and incorporating a sensible water use ethic for communities.

Goal

In partnership with utilities and local governments, adopt and implement goal-based water conservation regulations, local ordinances and utility practices to promote water efficiencies, further advance water management and achieve measurable reductions in public and private water use.

Strategies

I-A Public Water Supply

1. Require utilities to establish conservation plans with a numeric goal for water savings that is achievable.
    a. *Short-Term Action Step:* Modify the District's Water Use Basis of Review through rulemaking to require utility-specific goal-based conservation plans.
    b. *Short-Term Action Step:* Use the Conserve Florida Guide as a tool to assist utilities in developing a conservation plan to achieve goals.
    c. *Short-Term Action Step:* Provide technical assistance to utilities for using the Conserve Florida Guide.
    d. *Mid-Term Action Step:* Work with utilities to develop goal-based conservation plans in three phases – large, medium, then small utilities.

2. Require utilities to adopt rate structures that promote conservation as part of their conservation plan to achieve their water savings goal.
    a. *Short-Term Action Step:* Work with utilities to identify and define minimum standards for water conservation rate structures.
    b. *Short-Term Action Step*: Modify the District's Basis of Review to adopt minimum standards for water conservation rate structures.

3. Require utilities to adopt hardware programs as part of their conservation plan to achieve their water savings goal.
    a. *Short-Term Action Step:* Work with utilities to develop and implement leak-detection programs when "unaccounted-for water" exceeds permit requirements.
    b. *Short-Term Action Step*: Adopt a consistent definition for the term "unaccounted-for water."
    c. *Short-Term Action Step*: Develop a database of "unaccounted-for water" by utility throughout the District.
    d. *Mid-Term Action Step:* Work with utilities to determine and evaluate water savings from potential service-area-wide retrofit programs and implement programs within the service area where economically feasible.
    e. *Short-Term Action Step*: Develop guidelines and technical assistance for determining water savings of retrofit programs.

I-B Agricultural Irrigation

4. Maintain current irrigation requirements for new agriculture development.
    a. *Immediate Action Step:* Continue to require new agricultural development to incorporate accepted and crop-specific standard irrigation systems as part of the Water Use Permitting process.

I-C Landscape Irrigation

5. Establish district-wide requirements for consistent, year-round landscape irrigation.
    a. *Immediate Action Step:* Complete rule development and adopt a year-round landscape irrigation rule.
    b. *Immediate Action Step*: Develop a model year-round landscape irrigation ordinance for adoption by local governments.
    c. *Immediate Action Step*: Provide information and conduct workshops for local governments and enforcement officials regarding the landscape irrigation rule.

6. Require local governments, where applicable, to update local ordinances to incorporate landscape designs consistent with Florida Friendly landscapes.
    a. *Short-Term Action Step*: Modify the District's Water Use Basis of Review to incorporate landscape standards consistent with Florida-Friendly design.

b. *Mid-Term Action Step:* Work with local governments to adopt a model landscape ordinance consistent with the "Landscape Irrigation and Florida-Friendly Design Committee" (section 373.228, Florida Statutes).

I-D Industrial, Commercial and Institutional Uses

7. Improve reporting of compliance with permit requirements by Industrial, Commercial and Institutional users.

a. *Short-Term Action Step*: Expand the District's web-based e-permitting tool to facilitate timely self-reporting of the implementation of conservation plans for Industrial, Commercial and Institutional Uses.

I-E Golf Courses

8. Maintain current technology and landscape requirements in water conservation plans for existing golf courses.

a. *Short-Term Action Step:* Confirm that appropriate technology, such as rain sensors or soil moisture sensors, are installed and operational on existing golf courses.

9. Use technology and design to improve water conservation for golf courses.

a. *Short-Term Action Step:* Modify the District's Water Use Basis of Review to require new golf courses and those requesting additional water to use landscape design consistent with Florida Friendly landscaping.

b. *Short-Term Action Step:* Modify the District's Water Use Basis of Review to require new golf courses and those requesting additional water to install integrated rain sensor/weather station systems.

10. Improve reporting of compliance with permit requirements by golf courses.

a. *Short-Term Action Step*: Expand the District's web-based e-permitting tool to facilitate timely self-reporting of the implementation of conservation plans for golf courses.

Voluntary and Incentive-Based Initiatives

Voluntary and incentive-based initiatives, including financial assistance, technical assistance and recognition programs, often surpass the effectiveness of the traditional command and control approach to business, industry and individual practices. Rather than solely relying on rules, cooperative public-private partnerships can supplement regulations and build goodwill, leverage investments, bring wider environmental benefits and significantly improve the quality of life of our communities. In today's environment, businesses along with governments and consumers recognize the cost-savings associated with best management and conservation practices. Consequently, individuals and commercial enterprises are voluntarily changing behaviors and adopting environmentally-conscious and best management practices not only for the social value but also because of the economic returns.

Goal

Expand voluntary government and industry partnerships and strengthen economic incentives to encourage public and private investments in water conservation. Create and make available to water using sectors incentive programs and technical assistance for water conservation projects and programs.

Strategies

II-A Leading by Example

1. Reduce water use at District facilities.
    a. *Short-Term Action Step:* Conduct water audits, update water conservation plans and implement recommendations for District facilities.

2. Reduce water use at public facilities.
    a. *Mid-Term Action Step:* Provide technical assistance to State and local governments, including school districts and park and recreation programs, to develop and implement water audit programs and conservation plans for public facilities.

3. Use recognition programs to encourage water conservation beyond regulatory requirements.
    a. *Short-Term Action Step*: Identify and support existing successful water conservation recognition programs to reduce overlap and duplication.
    b. *Short-Term Action Step*: Provide technical assistance to support and expand water conservation recognition programs, such as the Florida Department of Environmental Protection's Green Lodging Program which promotes environmentally conscientious lodging establishments and the St. Johns River Water Management District's Florida Water Star which offers resources and incentives to builders and home buyers who value water efficiency in new home construction.

c. *Mid-Term Action Step*: Work with industries and associations to develop criteria and standards for new recognition programs to reward water users that achieve water savings through conservation. Recognition programs may include utilities, government, commercial and industrial users, golf courses, builders, restaurants and lodging establishments.
d. *Mid-Term Action Step*: Develop or support existing water conservation programs that designate and recognize "Florida Water Wise" homes, communities or cities similar to Certified Florida Yards.
e. *Mid-Term Action Step:* Explore integration of water audits into complementary recognition programs and initiatives for energy conservation, hurricane mitigation and green building.

II-B Financial Incentives

4. Strengthen existing and identify new financial incentives for water conservation.
a. *Immediate Action Step:* Support continued funding and technical assistance for development of alternative water supplies including reclaimed water, use of brackish and/or seawater sources, and aquifer storage and recovery (ASR).
b. *Short-Term Action Step:* Identify opportunities to expand the Water Savings Incentive Program.
c. *Short-Term Action Step:* Work with local governments and other entities to increase funding for agricultural and urban mobile irrigation labs.
d. *Short-Term Action Step:* Identify opportunities for public/private partnerships to fund water conservation projects and programs.

II-C Alternative Water Sources

5. Encourage the diversification of water supply and reduce dependence on regional freshwater resources through development of alternative water supplies.
a. *Immediate Action Step*: Assist municipalities, utilities and other water users with the installation and expansion of reclaimed water systems, where appropriate.
b. *Immediate Action Step*: Include special considerations in the year-round landscape irrigation rule for water users that utilize an alternative water supply.
c. *Immediate Action Step*: Allow special considerations during water shortages for water users that utilize an alternative water supply.

II-D Public Water Supply

6. Work with individual utilities to improve implementation of water conservation plans.
a. *Immediate Action Step*: Encourage utilities to establish a water conservation officer or empower a senior staff member to facilitate implementation of

the conservation plan and to serve as the primary liaison with the District to improve coordination.

b. *Short-Term Action Step*: Work with utilities to implement water audit programs and water conservation plans for high volume water users.

7. Work collaboratively with utility representatives to develop regional opportunities to enhance water conservation.

a. *Short-Term Action Step:* Establish a working group of utility representatives to promote information sharing and best management practices, which will facilitate implementation of individual water conservation plans.

8. Encourage utilities to use the most effective and efficient water conservation technologies.

a. *Short-Term Action Step*: Encourage utilities to use automatic line flushing devices to reduce water waste during maintenance operations for water quality.

b. *Short-Term Action Step*: Encourage utilities to use automated meter reading devices to provide real-time identification of high water usage.

II-E Agricultural Irrigation

9. Collaborate with the Florida Department of Agriculture and Consumer Services, the University of Florida's Institute of Food and Agricultural Sciences and the agricultural industry to implement agricultural water conservation programs and best management practices.

a. *Immediate Action Step*: Utilize agricultural mobile irrigation labs to conduct follow-up inspections to confirm implementation and determine effectiveness of water conservation recommendations.

b. *Short-Term Action Step*: Work with the agricultural industry and agencies to expand the availability of agricultural mobile irrigation labs.

c. *Immediate Action Step:* Encourage higher efficiency agricultural irrigation systems appropriate for the crop type.

d. *Mid-Term Action Step:* Develop a District-wide database to catalog soil type, primary crop, irrigation method and source of irrigation supply for the major agricultural areas within the District.

e. *Mid-Term Action Step:* Identify and promote new, more efficient irrigation technologies and best management practices for agriculture.

f. *Long-Term Action Step:* Conduct a pilot study using existing estimating methods to compare and improve agricultural water use measurement technologies.

II-F Landscape Irrigation

10. Work with utilities and local governments to maximize the use of urban mobile irrigation labs.

a. *Short-Term Action Step*: Work with utilities and local governments to expand the availability of urban mobile irrigation labs.
b. *Short-Term Action Step*: Utilize urban mobile irrigation labs to conduct follow-up inspections to confirm implementation and determine effectiveness of water conservation recommendations.
c. *Mid-Term Action Step*: Promote indoor conservation by offering simple, high-efficiency indoor devices with information on installation as a complement to urban mobile irrigation labs.

11. Identify alternative practices to improve water conservation for landscape irrigation.

a. *Short-Term Action Step*: Explore the use of cisterns or other rain collection devices to replace the use of potable water for irrigation and supplement other sources of water.
b. *Short-Term Action Step*: Collaborate with the University of Florida's Institute of Food and Agricultural Sciences on research of turf grass and evaluations of science based irrigation methods.

II-G Industrial, Commercial and Institutional Water Uses

12. Work with Industrial, Commercial and Institutional water users to reduce water use.

a. *Short-Term Action Step:* Identify an appropriate entity to implement a water audit program for Industrial, Commercial and Institutional water users.

13. Reduce water use for air-conditioning and cooling systems for Industrial, Commercial and Institutional water users.

a. *Short-Term Action Step*: Work with the Water Use Efficiency Division of the Florida Section of the American Waterworks Association to refine and recommend water conservation methods to reduce water use in cooling towers for Industrial, Commercial and Institutional water users.
b. *Short-Term Action Step*: Collaborate with industrial, commercial and institutional water users to implement reuse in cooling towers.
c. *Mid-Term Action Step:* Create a web based tool to demonstrate potential water and financial savings by reducing water use in cooling tower systems.
d. *Long-Term Action Step*: Encourage retrofit or replacement of inefficient air-conditioning and cooling tower systems for Industrial, Commercial and Institutional water users.

II-H Golf Courses

13. Work with golf courses to enhance water conservation.
    a. *Short-Term Action Step*: Encourage the most appropriate water efficient ground covers for golf courses.
    b. *Short-Term Action Step:* Encourage existing golf courses to use landscape design consistent with Florida Friendly landscaping.

II-I New Development

15. Work with contractors, state agencies and local governments to promote the use of best available water efficient technologies in new development.
    a. *Short-Term Action Step:* Encourage Leadership in Environmental Energy and Design (LEED) certification of new development.
    b. *Short-Term Action Step:* Develop and provide a model ordinance to local governments requiring new development to install high efficiency water saving devices that go beyond requirements of the Florida Building Code.

II-J Hospitality

16. Work with the Florida Department of Business and Professional Regulation, local governments and hospitality associations to improve water efficiency at restaurants and lodging establishments.
    a. *Short-Term Action Step*: Assist hospitality associations in creating a water auditing program for restaurants and lodging establishments.
    b. *Immediate Action Step*: Encourage the use of pre-rinse spray valves and other high-efficiency devices at restaurants and lodging establishments.

III. Education and Marketing Initiatives

Education, outreach and social marketing are essential for accomplishing a measurable change in water conservation and instilling a lasting conservation ethic in South Florida businesses and communities. Public information and involvement, along with education partnerships and support for existing successful local and statewide programs, are also critical to the success of South Florida's water conservation program. Targeted education, public information and social marketing provide opportunities for building a conservation culture, instilling a stewardship ethic and permanently reducing individual, industrial and commercial water use.

Goal

Collaborate and coordinate with regional partners to educate and inform residents and visitors about their environmental, economic and social responsibility, foster a culture of conservation and position the State of Florida as leader in water conservation.

Strategies

III-A School-Based Education

1. Build on existing programs and initiatives to institute educational water conservation programs in public schools, educate school-aged children on the benefits of water conservation and create a consciousness for conservation for future generations.
    a. *Immediate Action Step*: Inventory existing elementary, middle and high school-based education programs in the district, across the state and throughout the nation.
    b. *Immediate Action Step:* Expand the District's water conservation web site (www.savewaterfl.com) to include a one-stop repository where teachers and students can download existing water conservation educational resources.
    c. *Immediate Action Step:* Through the school districts, inform teachers and students about the availability of water conservation educational resources.
    d. *Short-Term Action Step*: Work collaboratively with local governments and other regional organizations to identify, promote, support and, where appropriate, expand the reach of existing and successful school-based water conservation education curriculums and lessons, including the Great Water Odyssey, The Everglades: An American Treasure, Project WET, WET in the City, NatureScape and others.
    e. *Short-Term Action Step:* Expand the District's Great Water Odyssey educational program. The computer-based interactive curriculum for 3rd, 4th and 5th grade students is an existing multidisciplinary education experience that correlates to Florida's Sunshine State Standards with a focus on water conservation.

f. *Short-Term Action Step:* Offer Great Water Odyssey teacher training workshops annually in each of the District's sixteen counties to promote water conservation in schools.
g. *Mid-Term Action Step:* Evaluate the effectiveness of the Great Water Odyssey curriculum in supporting the educational requirements and goals of the Florida Comprehensive Assessment Test (FCAT).
h. *Mid-Term Action Step*: Create a Water-Wise School program for high schools and ambassadorship opportunities by tapping into required community service hours. The program would encourage students to follow water conservation criteria and conduct water conservation indoor retrofits and outdoor landscaping measures to receive Water-Wise designation.

III-B Public Information

2. Collaborate and coordinate with local governments and regional partners to inform and educate elected and community leaders, businesses and industry, along with visitors, permanent and seasonal residents, on the benefits of water conservation.
   a. *Immediate Action Step*: Work collaboratively with local governments and other state, local and regional organizations and subject-matter experts to inventory and utilize water conservation public information materials and "how to" guides, including publications on water efficiency, water conservation, the use of water saving products, Florida-friendly landscaping and water efficient urban enhancements.
   b. *Immediate Action Step*: Work with the U.S. Environmental Protection Agency (EPA) to become a WaterSense promotional partner; encourage local governments to become WaterSense promotional partners. EPA is building WaterSense as a national brand for water efficiency that encourages water-efficient behaviors and the purchase of quality products that use less water. Becoming a promotional partner provides free marketing tools and resources and strengthens water-efficiency outreach efforts by utilities, state and local governments with a credible, national brand and a strong, consistent message.
   c. *Immediate Action Step*: Continue to develop the District's water conservation web site (www.savewaterfl.com) as a central repository and portal for public information on water conservation and existing programs.
   d. *Immediate Action Step*: Continue to work in partnership with the news media and local government programming to assist in the dissemination of water conservation public information.
   e. *Immediate Action Step*: Partner with the University of Florida's Institute of Food and Agricultural Sciences (IFAS), the Florida Department of Environmental Protection and the State's Water Management Districts to create, support, promote and distribute one comprehensive guide to Florida friendly landscaping.

f. *Short-Term Action Step*: Partner with the University of Florida's IFAS Extension -- a partnership between state, federal, and county governments to provide scientific knowledge and expertise to the public -- to utilize an existing network of scientists, educators and volunteers, support Florida-friendly landscaping programs and educate the public about water-wise irrigation practices.

g. *Short-Term Action Step*: Work with nursery and grower commodity groups to develop water wise signage for Florida-Friendly plants in nurseries and other retail outlets, promote their benefits and increase consumer knowledge and success in plantings.

h. *Short-Term Action Step*: Work collaboratively with the Governor's Office, the Department of Environmental Protection, water management districts, local governments and other appropriate organizations to encourage consistency in the branding, messaging and public information collateral used to promote water use efficiency and conservation across the state.

i. *Short-Term Action Step:* Based on any identified public information needs, develop any additional necessary collaterals in collaboration and partnership with the Department of Environmental Protection, water management districts, local governments and other appropriate organizations; ensure public information materials can be readily adapted and adopted and replicated in all regions of the state.

j. *Short-Term Action Step*: Maximize resources by engaging community colleges and university students in the development of water conservation public service announcements for broadcast, if needed.

k. *Short-Term Action Step*: Collaborate and coordinate with local governments to develop consistent and effective enforcement through education and public information to promote compliance with landscape irrigation restrictions.

l. *Short-Term Action Step*: Identify utilities that are implementing informative billing; work with large, medium and small utilities to phase in informative billing on water use, where possible.

III-C Professional Development

3. Offer voluntary training and certifications, where appropriate, to business and industry sectors (e.g. turf and landscape industries, plumbing, general contractors, educators, HVAC) on implementing conservation changes, water efficiencies and best management practices.

   a. *Immediate Action Step*: Work with the U.S. Environmental Protection Agency (EPA) to encourage landscape irrigation professionals (including irrigation designers, irrigation contractors, golf irrigation auditors, landscape irrigation auditors and landscapers) to become certified through a WaterSense labeled certification program and to implement water-efficiency best practices according to specifications set by EPA in specific professional categories.

b. *Immediate Action Step*: Work with the U.S. Environmental Protection Agency to promote WaterSense landscape irrigation professionals including designers, auditors, and installation and maintenance professionals that are certified to implement water efficiency best practices.
c. *Short-Term Action Step*: Inventory existing programs in the district, across the state and throughout the nation.
d. *Mid-Term Action Step:* Work with professional organizations, including the Florida Section American Waterworks Association and the Alliance for Water Efficiency, to develop conservation courses for CEUs, and other continuing educational credits for water conservation professionals, planners, design, building and landscape professionals.
e. *Long-Term Action Step*: Partner with trade schools, colleges and service industries to provide water conservation certifications to professionals.

III-D Social Marketing

4. Develop and implement an effective social marketing campaign that inspires an enduring water conservation ethic. Different to public information, social marketing uses the principles of commercial marketing to influence social behaviors and bring about permanent behavior change.
    a. *Immediate Action Step*: Identify government, corporate and institutional partners.
    b. *Immediate Action Step*: Inventory existing social marketing campaigns centered on water conservation in the district, across the state and throughout the nation. As appropriate and available, the inventory would include messages, market share, sponsors, paid and earned media tools, budget, funding sources and empirical data demonstrating success.
    c. *Immediate Action Step:* Make existing resources available on www.savewaterfl.com.
    d. *Immediate Action:* Assess adaptability of messages and tools employed in existing campaigns to Florida markets.
    e. *Immediate Action Step:* Collaborate with the Department of Environmental Protection and the State's Water Management Districts to evaluate the potential for partnership and consistency in branding and messaging at the state and regional level.
    f. *Short-Term Action Step:* Identify target audiences.
    g. *Short-Term Action Step*: Conduct market research to understand the audience, identify barriers to change ways to eliminate the obstacles to adopting everyday, individual water conservation habits.
    h. *Short-Term Action Step:* Set goals for behavioral change within each target group based on market research.
    i. *Short-Term Action Step*: Develop water conservation messages; select mediums (including print, electronic and broadcast media) and tools for inspiring behavioral change.

j. *Short-Term Action Step*: Pre-test the campaign.
k. *Short-Term Action Step*: Implement a multi-media social marketing campaign to effect individual behavior change.
l. *Short-Term Action Step*: Maximize earned media.
m. *Mid-Term Action Step*: Develop and incorporate a voluntary water conservation challenge, encouraging Floridians to "reduce their use" as a part of the social marketing campaign.
n. *Mid-Term Action Step*: Evaluate the results and adapt the campaign as new information and data on the effectiveness of the campaign becomes available.

III-E Volunteer Activities

5. Augment District water conservation education, public information and outreach efforts by developing a grassroots, volunteer corps of "water ambassadors" that will leverage available resources and strengthen the District's ability to reach different water using audiences about the value of water conservation.
    a. *Immediate Action Step*: Inventory existing programs in the district, across the state and throughout the nation.
    b. *Immediate Action Step*: Support existing and successful local volunteer programs that promote water conservation, where appropriate.
    c. *Immediate Action Step*: Identify the scope, target audience for a pilot volunteer initiative and professional/educational requirements for volunteers.
    d. *Short-Term Action Step*: Identify a District program coordinator.
    e. *Short-Term Action Step*: Develop a recruitment strategy, training curriculum and implementation strategy for the pilot program.
    f. *Short-Term Action Step*: Recruit first corps of volunteers.
    g. *Short-Term Action Step*: Conduct "water academies" to develop the knowledge base of recruited volunteer water ambassadors.
    h. *Short-Term Action Step*: Task trained ambassadors with supplementing the District's outreach activities and engaging and sharing information with their peers, communities and business sectors.
    i. *Mid-Term Action Step* Evaluate the effectiveness of the pilot volunteer initiative; adapt initiative as necessary and expand based on public/industry outreach needs.

9. Lunch - 12:30 - 1:15 45m

9

10. Urban Fertilizer Rule Presentation - Paul Gray, Ph.D., Audubon of Florida — 15p 15d

See supporting document: UrbTurf WRAC 5 8 08.pdf

- Public Comment — 10m

10

Water Resource Advisory Commission

May 8, 2008

Implications for Lake Okeechobee from phosphorus recommendations in the model "Urban Turf Rule"

Paul N. Gray, Ph.D.

Audubon OF FLORIDA

Florida Consumer Fertilizer Task Force: Final Report

- The Final Report's "Model Ordinance" (App. 4) had many good components
- The Model Ordinance had a "default" P recommendation of 0.25 pounds P2O5 per application per 1000 square feet (in 2 annual applications)
- This talk is about the default P recommendation

“Science” of recommendation

- Based partly on IFAS research that optimized P for grasses
- The IFAS research did NOT measure resulting water quality (that study is underway)
- Thus, there is no direct relationship between the turf recommendations and meeting water quality goals

“9.5 pounds of P per acre”

- **0.5 pounds per 1000 square feet translates to 21.78 pounds of P2O5/acre each year**
- **21.78 pounds is 9.5 pounds of pure P per acre**
- **Is this compatible with Lake Okeechobee’s P TMDL?**

“95 times higher than Okeechobee’s TMDL goals”

- Attaining Lake O’s 105 metric ton P goal from the upstream watershed requires an average of 0.1 pound/acre
- Therefore, the 9.5 pound per acre can be seen as “95 times” too high
- But, urban areas are not all turf, so “95 times” is too simplistic
- I looked at acres of urban development in the Kissimmee Chain of Lakes to estimate net import possibilities

Sources

- Mock-Roos & Associates. 2003. Lake Istokpoga and Upper Chain of Lakes phosphorus source control: Task 4 final report. South Florida Water Management District Contract No. C-13413. West Palm Beach.
- Harper, H. H., and Baker, D. M. 2007. Evaluation of current stormwater design criteria with the State of Florida. Final Report. Florida Department of Environmental Protection, FDEP Contract No. S0108. Tallahassee.

If half the pervious area received recommended rate, about 137 metric tons would be imported annually

Land Use	Mock Roos definition	Area (acres)	Harper similar category	Percent pervious area	Estimated phosphorus application (pounds)
Residential Low Density	1 unit/5 acres	37,350	Low density Residential	67%	118,866
Residential med. Density	2 units/acre	45,660	Single family	67%	145,313
Residential high density	5 units/acre	20,560	Multi family	33%	32,228
Residential Mobile Home	10 units/acre	3,750	Multi family	33%	5,878
Totals		**107,320 acres**			**302,285 pounds = 137 m tons**

Is “137 tons” OK?

- Lake TMDL is 105 tons annual inflow
- 137 tons applied on about 4% of the watershed’s area
- Applications continue annually
- This would create hotspots through the region that would get “hotter” over time—creating more ”Legacy Phosphorus”
- Assimilation?

Legacy P vs. Assimilation

- Some P is “assimilated” and will not flow out
- Assimilation capacity is limited and once exhausted, P outflows increase dramatically
- Some assimilation processes are temporary, giving a false sense of effectiveness
  - e.g., P in plants is released at death
  - e.g., P on iron gets released with flooding
  - Mud in waterways moves in storms

Audubon's Urban Turf recommendations

- Emphasize no P grasses
  - Utilize existing grass like Bahiagrass, or
  - Develop cultivars with desired characteristics
- Make allowances for starter grasses and working turf
- Urban turf is one source of imported P that we can deal effectively with
- Prevention is WAY cheaper than clean-up

11. Recreation Issues Workshop Report - Rick Smith, WRAC Facilitator, SFWMD; Steve Coughlin, Dir., Land Stewardship Div., SFWMD 10p 10d

See supporting document: WRAC Rec Iss Pres 5 8 08.pdf

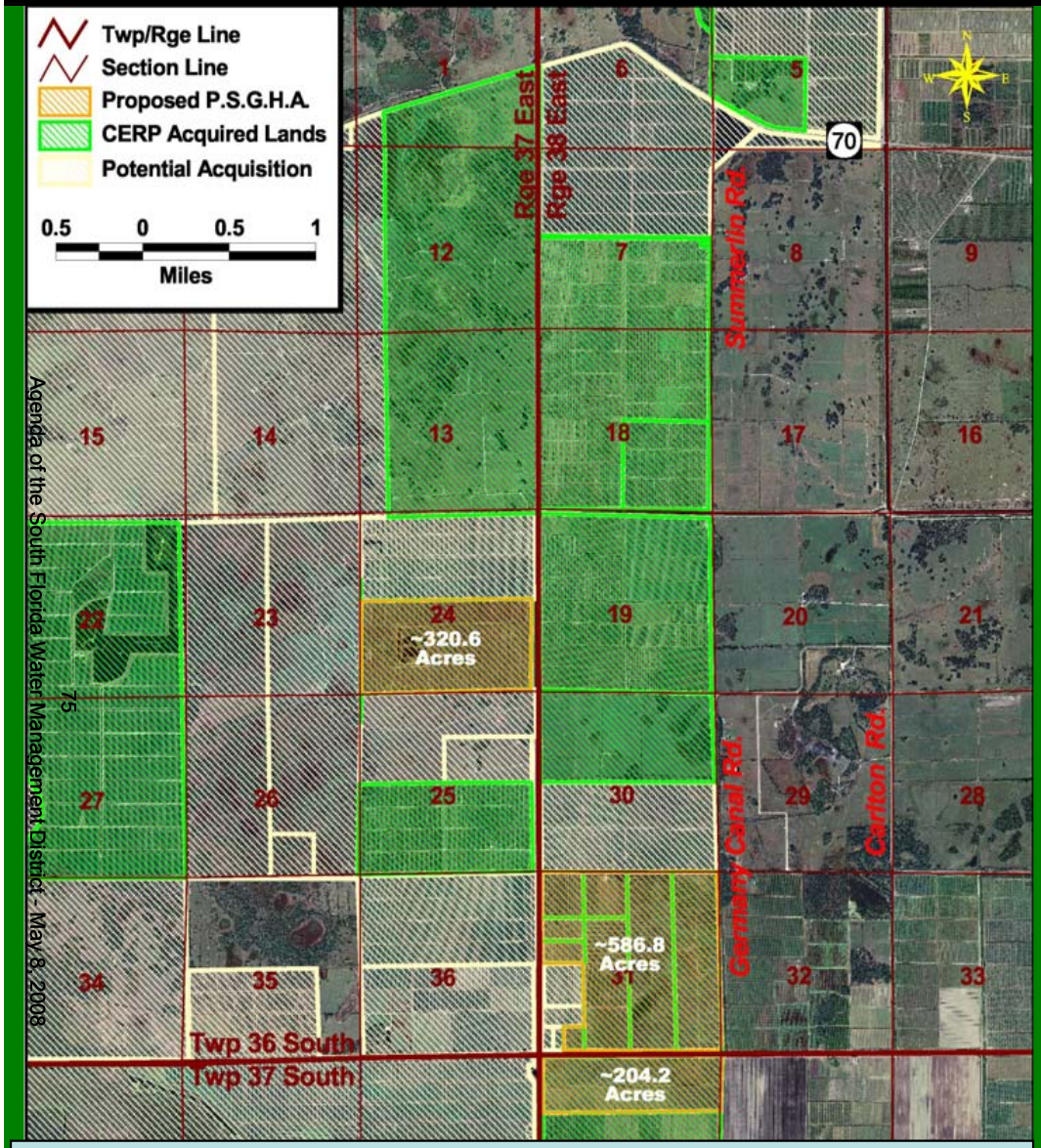
See supporting document: WRAC Rec IWS 4 14 08 Mtg Sum.pdf

11

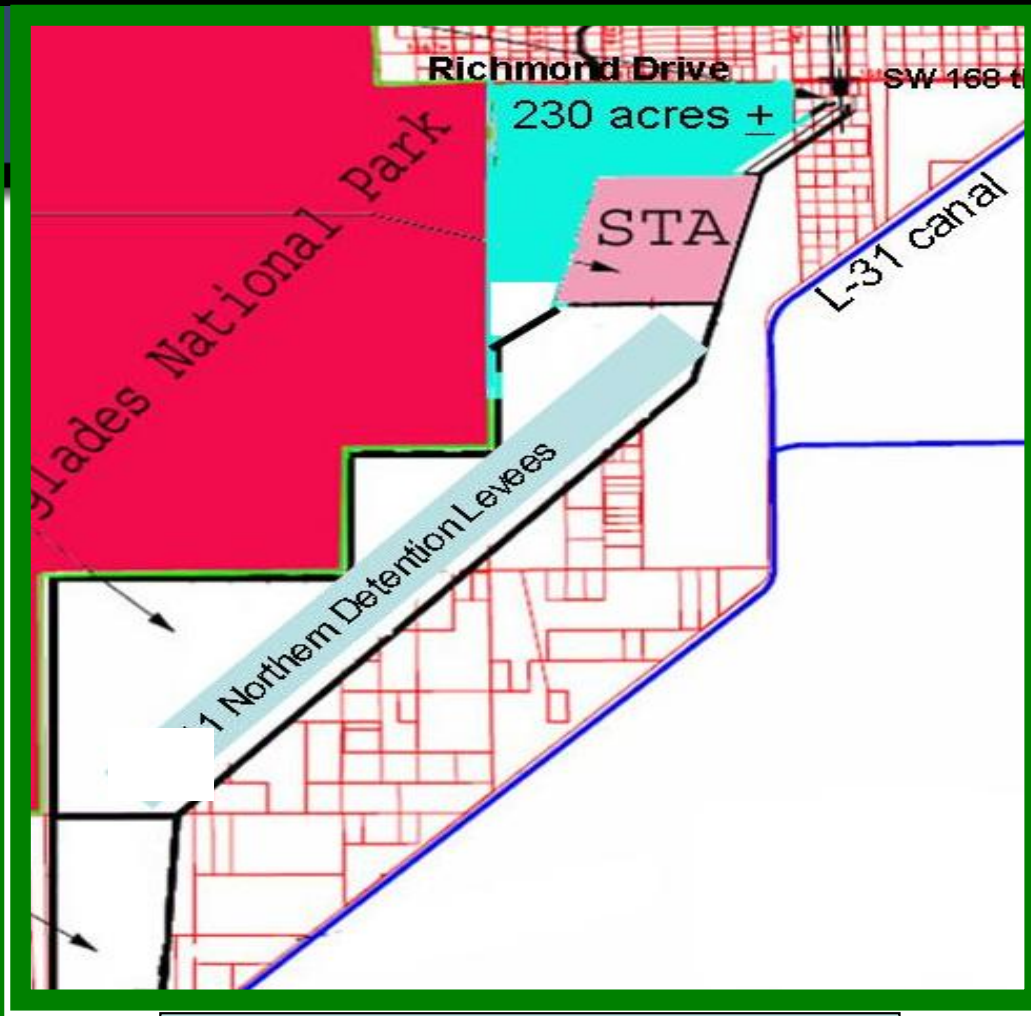
Stormwater Treatment Area Activities

Waterfowl Hunting 2008

- STA 2, 3/4 and 5 -no change
- STA 1W -no hunting area around boardwalk
- Requesting GB -approval to put in place a permanent waterfowl hunting program



C-23/24 South Reservoir, St. Lucie County - 1113 acres,



Rocky Glades, Miami Dade County - 230 acres

Vacant/Undesignated Lands for Public Small Game Hunting Area

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
WATER RESOURCES ADVISORY COMMISSION
RECREATION ISSUES WORKSHOP, Monday, April 14, 2008
5:00-8:00 P.M., Building B-1, Auditorium
3301 Gun Club Road, West Palm Beach, FL

MEETING SUMMARY

This is a summary of the WRAC Recreation Issues Workshop on April 14, 2008, at SFWMD in West Palm Beach, FL. This report will be posted on http://my.sfwmd.gov/wrac.

Future Presentations/Meetings Requested:

- **Presentation on Lake Istokpoga boat ramp**
- **Presentation to Everglades Coordinating Council re: Access at L-6 Canal**
- **Meeting on-site to discuss public safety buffer at STA-1, West Public Access area**
- **Stakeholder meeting on Kissimmee Chain of Lakes Public Use and Access**
- **Broward Greenway/Trail - WCA-2 West Levee: Need On-site meeting re: small pedestrian/bicycle bridge and removal of Brazilian pepper.**
- **On-site meeting re: Chandler Slough public safety buffer.**
- **USACE: Update on 10-Mile Creek Boat Ramp**
- **Stakeholder Review of Lake Kissimmee Boat Ramp Design**

Item 1: David Lithgow, Chair, WRAC Recreation Issues, welcomed everyone and asked people to introduce themselves.

Item 2: Rick Smith, SFWMD WRAC Facilitator, reviewed the Future Meetings calendar (see "Future Meetings" below).

Item 3: Jerry Krenz, Division of Land Stewardship, briefed the group about recreation access, public use plans, and a pilot bank fishing program for the Stormwater Treatment areas, SFWMD Expedited Projects and Comprehensive Everglades Restoration Plan projects.

Discussion:

Stormwater Treatment Areas (STAs):

- Public access to STA-1, West during the hunting season (a public access facility at STA-1, West is expected to open in June).
- Need for a safety buffer because public access will be provided during hunting season.
- SFWMD should consider closing to public access on hunting days. This is common for Wildlife Management Areas operated by the Florida Fish and Wildlife Conservation Commission (FWCC).

- Question about other recreation access (kayaks/canoes) to the STAs was discussed. SFWMD: Access to exterior canals outside the STA levee currently allowed.
- STA-1, East: a pilot bank-fishing program, (Public Access site on Southern Boulevard in Palm Beach County), will begin following the May 7 site dedication. Catch and release bank fishing will be allowed on the interior banks from Friday to Monday. The program will be evaluated after six months.
- Discussed ability to fish in areas where aquatic vegetation comes up to the bank. FWCC and SFWMD staff have walked the area and there are many excellent fishing spots at the site.
- Hunting in STA-2: Participants were informed at the meeting that waterfowl and small game hunting would be authorized for the coming season. **Note:** SFWMD staff has learned since the 4/14 meeting that there is a construction conflict, so STA-2 will not be open for hunting this season.
- STA-3/4: The Harold A. Campbell Boat Ramp and Recreation Site is open and fishing has been excellent in the area.

Expedited Projects (formerly "Acceler8 Projects"):

- The Compartment B Buildout project in the Everglades Agricultural Area (EAA) is proceeding. An existing public crossing of the L-6 Canal in the area will have to be removed, limiting access to the east side of the canal. Alternatives to provide continued access are currently being evaluated.
- Access at the Okeelanta Bridge will remain open providing access along the L-6 levees.
- Workshop participants agreed that a presentation, with maps showing location of planned pumps, structures and access points, should be made to the Everglades Coordinating Council during its next meeting.

Comprehensive Everglades Restoration Plan (CERP):

- Public meetings to hear comments about the draft CERP Master Recreation Plan have been held in April and three will be held in May (schedule was handed out).
- The U.S. Army Corps of Engineers (USACE) will conduct an Ethnographic Study, to include the Gladesman/Swamp Folk Cultures.
- Need boat ramp at 10-mile Creek Reservoir. USACE representative said the request would be forwarded to the 10-Mile Creek project managers and a report would be provided at next meeting. Staff does not anticipate changes to the levee to accommodate a boat ramp.
- Site 1 Impoundment and C-11 access projects are being designed.
- An Overlook Tower and Bird Watching Platform are being planned for the Biscayne Bay Coastal Wetlands project. The Village of Cutler Bay will be a partner on these projects.

Item 4: Land Stewardship Division Update – Dan Cotter provided update. Two representatives of Polk County Parks and Recreation Department answered

questions about the proposed operational rules for the Lake Kissimmee Boat Ramp/Campground.

Discussion:

Lake Kissimmee Boat Ramp/Campground (Shady Oaks)

- Need stakeholder review of the 60% design plans.
- Need to assure access after 10:00 p.m.
- Ramp accessible 24/7; not the campground
- Rule enforcement to be accomplished by caretaker and law enforcement officers.
- Participants requested FWCC be a party to the agreement.
- Agreement/Partnership with Polk County has already been approved by SFWMD Governing Board Resolution.
- Polk County provided letter of intent to SFWMD agreeing to keep boat ramp open 24/7 and allow firearms if cased and unloaded. Polk County assuming full liability.
- Questions about alcohol, side-arms, "3-Strike Rule" etc.
- Idle zone – needs to be researched.

Allapattah:

- SFWMD needs to consider adding designated camping sites at Allapattah. There is only one now.
- Need to review current system for issuing quota permits. Few people are drawing down many permits.
- Cottage Road improvement: SFWMD staff will evaluate.

Hunting on Undesignated Lands:

- Comment that budget cuts may mean large parcels acquired for SFWMD may not be used as quickly for projects. Need to review those lands to allow hunting/fishing in the interim.
- Staff will review.

Rocky Glades:

- ATV access to Rocky Glades was discussed.

Broward Greenway/Trail – WCA-2 West Levee:

- Request SFWMD staff evaluate ability to build small pedestrian/bicycle bridge to keep from having to walk/run/ride on US 27. Staff will evaluate.

Rough Island/Johnson Island:

- Treatment of hunters by FWCC officers not as it should be, especially in these areas. FWCC will look into the issue.

Future Meetings:

- **June 16, 2008, Lower West Coast Service Center, 2301 MacGregor Blvd., Ft. Myers, FL, 5-8:00 p.m.**
- **August 11, 2008 at SFWMD, Building B1 Auditorium, West Palm Beach, 5-8:00 p.m.**
- **October 13, Ft. Lauderdale, FL, place to be announced, 5-8 p.m.**
- **December 15, 2008, Building B-1 Auditorium, West Palm Beach, FL, 5-8:00 p.m.**

Meeting Adjourned at 7:30 p.m.

12. Water Flow South Issues - Cal Neidrauer, Chief Engineer, Operations Control Dept., SFWMD 15p 30d

12

13. L-31, North, Seepage Management Pilot Project Update - John Shaffer, Project Manager, Everglades Restoration, SFWMD 10p 10d

13

14. Adjourn: 3:20 p.m

14